

---

Subject: Combine multiple UV'd objects

Posted by [canadian90](#) on Wed, 29 May 2013 14:54:26 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

I'm desperately hoping someone knows the answer to this. I'm trying to combine two objects after editing their separate UV maps. For example, say I created a bust of a person and edited their UV so it looks perfect. Then, I'm told the model needs a base, something to sit on. Since these two objects need to become one in order to export as a single .X3D, I'm having many problems trying to keep the UV maps separate.

In case that doesn't make sense, here's another scenario. Say I have a character fully textured and ready for print in colored sandstone. But, now I want to add a weapon in his hands that is also fully textured and ready for print. How can I combine the two objects without having to redo both of their UV maps?

If any of you can think of a way to do this in any program, please let me know. Thanks for your time.

---

---

Subject: Re: Combine multiple UV'd objects

Posted by [aeron203](#) on Wed, 29 May 2013 16:57:35 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

I've had this trouble where some programs collapse the geometry into one object and share the material. The best solution I found (short of using better software) was to paste one file at the end of the other, then remove the header and other redundant info, and ensure there is no naming conflict. If both sets of geometry are called "object" and both textures called "image", it wouldn't work, obviously. I was using VRML2.0 (\*.wrl), but other text-based formats would probably work as well. Also, I was printing these objects myself, so I have not tested it with Shapeways, but I have seen designs on here that appear to use multiple textures.

---

---

Subject: Re: Combine multiple UV'd objects

Posted by [canadian90](#) on Wed, 29 May 2013 17:02:10 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Thanks for the reply. I'm not sure I entirely follow what you mean. But does that completely merge the two objects while keeping each's UV map?

---

---

Subject: Re: Combine multiple UV'd objects  
Posted by [aeron203](#) on Wed, 29 May 2013 22:47:00 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Sorry if that was not clear. I was describing a workaround to put both objects into one file when the software you are using does not export multiple materials correctly. It does not affect the UV maps at all, and allows you to use both sets, which is much easier and better than trying to combine them. The objects would print as a solid piece. It does not merge the objects in the sense of a Boolean union, but that is not necessary to get the effect you desire.

---

---

Subject: Re: Combine multiple UV'd objects  
Posted by [bartv](#) on Tue, 18 Jun 2013 08:55:58 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

The problem with having two overlapping UV-mapped objects in one file is that our Mesh Medic software will also perform a boolean union on them. This usually damages the UV mapping, you'll see that in the preview render.

Which software do you use for modeling?

Bart

---

---

Subject: Re: Combine multiple UV'd objects  
Posted by [canadian90](#) on Tue, 18 Jun 2013 21:35:49 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

That's what I assumed was happening, and it makes perfect sense for it to be a problem in the first place. Just hoping there's a way around it. I have yet to get a chance to try the suggested solution.

I have access to Maya, Blender, Mudbox, Meshlab, Netfabb, and Zbrush. If you can think of a way to do this on any of those programs or any combination, I'd love to hear it.

---

---

Subject: Re: Combine multiple UV'd objects  
Posted by [bartv](#) on Wed, 19 Jun 2013 04:29:58 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Maybe some users of these apps can weigh in here: does anyone know which tool can do a boolean union and still preserve the UV texture maps?

Cheers,

Bart

---

---

Subject: Re: Combine multiple UV'd objects  
Posted by [aeron203](#) on Fri, 28 Jun 2013 17:01:34 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

The shortest and easiest answer here is that Max can do this by baking the textures to a single map (texture baking is in the Render menu). Combining UV's without modifying them is not something that can work because the texture space of the maps would overlap. When you do a Boolean in Blender for example, the UV's are preserved just fine, but they can only refer to one map. The closest thing to "unmodified" would be to scale the UV's 50% and move them to one corner of the map, then tile the texture maps together into one file. That way you could combine up to four sets in one map using a different texture and UV set for each quadrant. Finally, you can avoid the use of UV altogether by transferring the textures colors onto the vertices in Meshlab (Filters->Texture->Texture To Vertex Color) after subdividing to get an appropriate sample density. I know this is not a complete tutorial on how to do it, but those are the three options you have available, and they are very achievable with the tools you have. If you need a pointer on applying one of the methods, let me know.

---

---

Subject: Re: Combine multiple UV'd objects  
Posted by [aeron203](#) on Fri, 28 Jun 2013 17:05:12 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

BTW, I want to add that I have tested a few multi-UV models like this one, and the UV's are coming out fine in every case so far.

---